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United States Patent [19][11] **Patent Number:** **5,148,522****Okazaki**[45] **Date of Patent:** **Sep. 15, 1992**

[54] **INFORMATION RETRIEVAL APPARATUS
AND INTERFACE FOR RETRIEVAL OF
MAPPING INFORMATION UTILIZING
HAND-DRAWN RETRIEVAL REQUESTS**

[75] **Inventor:** **Akio Okazaki**, Yokohama, Japan

[73] **Assignee:** **Kabushiki Kaisha Toshiba**, Kawasaki,
Japan

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[52] **U.S. Cl.** **395/161; 340/706;
382/57**

[58] **Field of Search** 364/518-523;
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Primary Examiner—David L. Clark

Attorney, Agent, or Firm—Oblon, Spivak, McClelland,
Maier & Neustadt

[57] ABSTRACT

An interface, adapted for receiving information composed of symbols, characters, and diagrams representing a spatial positional relationship and used as a retrieval request, comprises an entry device for entering a two-dimensional image, and a retrieval request interpreting device for recognizing elements forming the entered image, such as symbols, characters, and diagrams, and determining a two-dimensional spatial relationship between elements so as to determine retrieval conditions. Information retrieval is executed on the basis of the retrieval conditions determined by the retrieval request interpreting device. Thus, a user is allowed to enter a retrieval request in two-dimensional image form, namely, in an easily intelligible form and in a timesaving manner. This enables makes it possible to retrieve easily sophisticated information as well.

9 Claims, 19 Drawing Sheets

